

RESPONSE UNDER 37 C.F.R. § 1.116
U.S. Patent Application No. 10/020,956

The Examiner has objected to the Amendment filed on June 2, 2003 under 35 U.S.C. § 132 because it allegedly introduces new matter into the disclosure. In particular, the Examiner objects to the addition of the underlined subject matter; namely, "by deflecting said upper and lower flanges towards each other over an entire circumference thereof."

The Examiner also rejects claims 1-3 under 35 U.S.C. § 112, first paragraph, as both failing to comply with the written description requirement and with the enablement requirement, again referring to the language "by deflecting said upper and lower flanges towards each other over an entire circumference thereof."

Applicant vigorously disagrees with the Examiner's new matter objection under §132 and rejections under §112, first paragraph, for the reasons set forth in detail below.

First, it is well settled that new matter is that which is not found in the specification or drawings as first filed and which involves a departure from the original invention. In other words, new matter is material which is not explicitly, implicitly, inherently or intrinsically present in a patent application as of its effective filing date. *In re Oda*, 170 USPQ 268 (CCPA 1971). Amendments which describe the invention in much more detail and amendments which clarify and complete the original disclosure do not rise to the level of introducing new matter. See, for example, *In re Heinle*, 145 USPQ 131 (CCPA 1965). Likewise, drawings may be relied upon to satisfy the disclosure requirements of 35 U.S.C. § 112. *Ex parte Horton*, 226 USPQ 697 (POBAI 1985).

In the present application, the original disclosure quite clearly discloses that a distance between the upper and lower flanges 12, 13 (the distance between the lower face of the upper

flange and the upper face of the lower flange 13) is designated as H2 at the most outer *circumferential* edges of the flanges (see paragraph bridging pages 8 and 9 - emphasis added). Further, in the paragraph bridging pages 9 and 10, it is disclosed that as the magnetic tape 20 is being wrapped around the outer peripheral wall 11a of the hub, a distance between the upper and lower flanges 12, 13 *at the most outer circumferential edges of the flanges* (in an outer direction from the outer peripheral surface of the outer peripheral wall 11a of the hub) is gradually *decreased* as shown in Fig. 3, the distance is set as H2'. Quite clearly, Figs. 2 and 3 are merely cross-sectional views through a portion of the magnetic tape reel, but illustrating how a distance between upper and lower flanges 12 and 13 at the most outer circumferential edges of the flanges is gradually decreased. The amendment to the specification and claim 1 that the upper and lower flanges are deflected towards each other over an entire circumference thereof merely clarifies and completes what is readily apparent from the original disclosure and the drawings; namely, that the upper and lower flanges in order to have the distance decreased at the outermost circumferential edge portions must deflect towards each other along the entire outer circumference. This operation is further reinforced throughout the specification. For example, see page 10, lines 14 and 15 and lines 24 and 25, as well as Fig. 3 which shows the outermost circumferential ends of the upper and lower flanges first in two dot and dash lines and then in solid lines closer together in a condition where the tape has been wound onto the reel hub.

In the paragraph bridging pages 2 and 3 of the present final Office Action, the Examiner alleges that the recitation "by deflecting said upper and lower flanges towards each other over an entire circumference thereof" is an inaccurate description and not physically possible. The

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Examiner maintains that he cannot see upper and lower flanges moving towards each other when the magnetic tape is being wrapped around the hub. For example, in Fig. 2, the Examiner alleges that the outer wall 11a is connected to the lower flange 13, but the upper flange 12 is not connected to the outer wall 11a, but rather fastened by 11e. The Examiner concludes that as the magnetic tape is being wrapped around the hub, only the lower flange 13 would move toward the upper flange 12 because of the force on the hub is buckling the lower flange, thus decreasing the distance between the upper flange and the lower flange. The Examiner maintains that the upper flange cannot be moved even though it is secured to the hub by fasteners.

With reference to the personal interview noted above on November 21, 2003, as indicated on the interview summary of the same date, regarding the issue of new matter with respect to the specification and claims, based on the above arguments which were presented during the interview, the Examiner and his supervisor agreed that there is clearly support for the previous amendment to the specification and claims made on June 2, 2003.

Furthermore, after considering the arguments made during the personal interview, Examiner Kim and SPE Matecki requested further clarification on the following two points. First, they wish to have a further explanation of Applicant's data showing a change of the distance of the upper flange and the lower flange. Moreover, they wish to have clarification on the interaction of the hub 11a with respect to the upper flange 12. Examiner Kim indicated that if the above points were satisfied, then he would be willing to reconsider and withdraw the rejection under § 112, first paragraph, based on the failure to comply with the enablement requirement.

In order to further explain how the upper and lower flanges are deflected toward each other over an entire circumference thereof, Applicant submits herewith explanatory Figures A, B and C. Fig. A shows an experimental apparatus having a tape reel in accordance with the present invention. A measuring head was attached on the upper surface of an upper flange, and another measuring head was attached on the lower surface of a lower flange. A base level was set under the lower flange.

Fig. B shows a positional variation of each of the upper flange and the lower flange around the circumference of each circular flange. The positional variation in each position on the upper (or lower) flange is shown in the sequential line graph thereof. The horizontal axis of Fig. B shows each position (as measured in degrees) as measured along the circumference of the circular flange. The longitudinal axis of Fig. B shows run-out positions of each flange. The dotted lines/triangular marks show the run-out positions of the flange **before** the tape is wrapped, whereas the solid lines/rectangular marks show the run-out positions of the flange **after** the tape is wrapped. The roughness on the surface of the flange was not more than $10\text{ }\mu\text{m}$ by surface roughness R_y ; therefore, it is deemed that the roughness is washed over in this positional variation.

As best shown in Fig. C, while an angle between the flange and the hub is normally maintained at 90° , the hub changes its shape after tape is wrapped therearound. Therefore, since the cylindrical body of the hub is deformed, the upper flange is moved downwardly and the lower flange is moved upwardly.

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The Applicant's representative conducted a further telephonic interview with Examiner Kim on December 8, 2003, wherein the positional variation of each of the flanges along the circumference thereof was explained to him to point out that deflection of the upper and lower flanges toward each other indeed occurs over an entire circumference thereof, albeit in a non-

uniform manner. Moreover, the Applicant's representative referred Examiner Kim to the paragraph bridging pages 7 and 8 of the subject application in order to clarify that the upper

flange 12, for example but not by way of limitation, is bonded to the hub 11 by welding through ultrasonic waves.

In view of the foregoing explanation and explanatory Figures, the Examiner is also requested to reconsider withdrawal of the rejection under § 112, first paragraph, based on the alleged failure to comply with the enablement requirement.

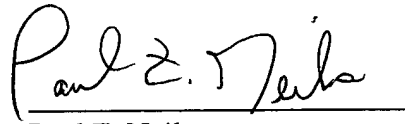
In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

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The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

A handwritten signature in cursive script, reading "Paul F. Neils", written over a horizontal line.

Paul F. Neils
Registration No. 33,102

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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